

The respiratory system

The main function of the respiratory system is to supply the blood with oxygen so the blood can deliver it to the rest of the body. When you breathe in you suck in oxygen and when you breathe out you blow out carbon dioxide.

Organs working together

When you breathe air goes in through your mouth and nose, and straight down your windpipe (trachea). After it passes through the trachea it goes into the bronchial tubes, which leads to the bronchioles, these are even smaller tubes, which leads to the alveoli. Alveoli are small sacs in the lungs that transfer the oxygen into the blood. When this happens carbon dioxide is created than carried back to your lungs where everything happens in reverse and the carbon dioxide is pushed out. Whenever you breath this process happens.

Nose – The primary respiratory organ in which are enters and exits form the body. Cilia and mucus line the nasal cavity to trap bacteria and foreign particles form entering the body. The air that is passed through is humidified and moistened. There are two nasal cavities: one for sell and the other for respiration.

Pharynx - Other than the nose the air can travel into the lungs and through to the mouth. Pharynx is a tube like organ that it is placed behind the oral and nasal cavities. It allows air to go through the mouth and into the lungs. The pharynx has three parts, the nasopharynx, which is between the top of the epiglottis and the soft plat and the laryngopharynx is located below the epiglottis.

Larynx (voice box) – the voice box has two main functions. One is a passageway for air to enter into the lungs and is a source of vocalization. The voice box is made of hyoid bone and cartilage, which helps control the air. The epiglottis is a flap of cartilage used to protect the trachea against food aspiration.

Bronchi – are the main passageway that goes into the lungs. When a person takes a breath through the nose or mouth the air goes into the larynx. The air then goes through the trachea and the air is carried to the right and the left bronchi. Then the bronchi get smaller as they reach the lung tissues and then they are considered bronchioles. The passageways then form into alveoli which is the site of the oxygen and carbon dioxide exchange in the respiratory

Lungs – lungs are spongy, air-filled organs on both sides of your chest. The left lung is divided into a superior and infernal lobe and the right lung is subdivided into superior, middle, and inferior lobe. The primary function of the lungs is to transfer oxygen into the blood stream and release carbon dioxide into the air.

Alveoli – is small sacks that are at the end of the respiratory. The swapping of oxygen and carbon dioxide happens at the alveolar level. A lot of effort is required to blow up alveoli which is almost the same as blowing up a balloon but deflating one takes little effort

Diaphragm – is a muscular structure located between the thoracic and the abdominal cavity. When the diaphragm contracts the chest or thorax expands which causes inhalation.